

REMARKS

Claims 1 and 3-7 are pending. No new matter has been added by way of the present amendment. For instance, claim 1 has been amended to include the text of subject matter of originally filed claim 2. Moreover, claim 1 requires that the natural rubber contain proteins having a molecular weight of more than 14 kDa as supported by the present specification. In this regard, particular reference is made to lanes 3, 4 and 5 of Figure 4. These lanes correspond to Examples 4, 5 and 6 and the natural rubbers discussed therein. It is apparent that bands at 14, 31 and 45 kDa are not present in these lanes. However, strong bands appear in the range of 6.5 to 200 kDa. This illustrates the fact that proteins having various molecular weights are present (when the amounts of the proteins are represented by nitrogen content, they are 0.02 to 0.3% by weight as now set forth in claim 1). It is therefore evident from Figure 4 that the natural rubber of the present invention contains proteins having a molecular weight of more than 14kDa. This is, of course, to the substantial exclusion of proteins specified by bands 14, 31 and 45 kDa. The Examiner is also requested to refer to the Declaration attached hereto, which explains these issues to a greater degree.

New claim 7 is supported by originally filed claims 1 and 2 as well as the present specification, for instance, reference is made to Figure 4 as discussed above. The specification has also been amended to include full naming for each of the abbreviations as noted by the Examiner. Thus, no new matter has been added.

In view of the following remarks, Applicants respectfully request that the Examiner withdrawal all rejections and allow the currently pending claims.

Objections to the Specification

At page 2 of the outstanding Office Action the Examiner has objected to the specification requesting that the full name of each of the listed rubbers be recited. Applicants submit that the specification has been amended as suggested by the Examiner. Accordingly, this objection is moot. Reconsideration and withdrawal thereof are respectfully requested.

Issues under 35 U.S.C. §102(b)

The Examiner has rejected claim 1 under 35 U.S.C. §102(b). The Examiner has rejected claim 1 under 35 U.S.C. § 102(b) as being anticipated by Ichikawa et al., EP1205491 (herein referred to as Ichikawa '491). Applicants respectfully traverse this rejection.

Ichikawa '491 discloses a low allergic natural rubber which is substantially free of any protein or protein decomposition products having a number average molecular weight of 4500 or more as the Examiner states (see page 3, lines 18-20, page 4, lines 47-48, page 6, line 35 and page 10, lines 46-50 of the Office Action). Since the low allergic natural rubber of Ichikawa et al. '491 can contain only proteins having a molecular weight of less than 4500 as described above, the content of the proteins is 0.02 % or less in terms of nitrogen content.

In contrast to this, the natural rubber of the present invention (i) contains proteins having a molecular weight of more than 14 kDa (alternatively recited in claim 7 as containing proteins having a molecular weight of 6.6 kDa to 200 kDa) to the substantial exclusion of proteins specified by the bands of 14, 31 and 45 kDa by SDS-PAGE and (ii) has a nitrogen content of 0.02 to 0.30 % by weight. Although the natural rubber of the present invention contains proteins having a molecular weight of more than 4500 (4.5 kDa), which the natural rubber of Ichikawa et al. does not contain, in an amount of 0.02 to 0.3 % by weight in terms of nitrogen content which is much larger

than that of the natural rubber of Ichikawa '491, the natural rubber of the present invention (iii) contains substantially no proteins specified by the bands of 14, 31 and 45 kDa, which proteins cause Type 1 allergy (see page 11, lines 33 to page 12, line 1 of specification). Therefore, it is non-allergic (see page 12, 1st paragraph of specification).

In short, Ichikawa '491 aim to obtain a low allergic natural rubber by decomposing all the proteins contained in the natural rubber with a proteolytic enzyme completely to convert them into low molecular weight compounds which can be easily removed and removing them as much as possible. In contrast to this, the present invention aims to obtain a non-allergic natural rubber by decomposing proteins which will become allergens without fail (therefore, even if the nitrogen content of the present invention is higher than that of Ichikawa '491, a non-allergic effect can be obtained).

Consequently, the present invention and the invention of Ichikawa et al. differ from each other in the technical idea of the invention. In other words, they aim to achieve the same goal but differ from each other in approach to the goal as well as the make-up of the final product. As a result, the finally obtained products, i.e., natural rubbers of the present invention and Ichikawa '491 completely differ from each other as described above.

Accordingly, it is evident from the above that claim 1 is not anticipated by Ichikawa '491. The Examiner is therefore respectfully requested to withdrawal this rejection.

Issues under 35 U.S.C. § 103 (a)

The Examiner has rejected claim 2 under 35 U.S.C. § 103(a) as being obvious over Ichikawa '491 in view of Hamada et al., JP2001-122906 (herein referred to as Hamada '906).

Applicants respectfully traverse this rejection.

Ichikawa '491 and the deficiencies thereof were discussed above. However, with respect to claim 2, the textual subject matter of which is now recited in claim 1, the Examiner has also cited Hamada '906.

Hamada '906 teach a deproteinized natural rubber with a nitrogen content of less than or equal to 0.1 % by weight of the rubber. A low allergic natural rubber having a low nitrogen content is obtained by combining Hamada '906 with Ichikawa '491, and thus, the natural rubber of the present invention containing proteins having a molecular weight of more than 14 kDa is not obtained. Accordingly, there exists no obviousness based upon Ichikawa '491 in view of Hamada '906. The Examiner is therefore respectfully requested to withdrawal this rejection.

Lastly, the Examiner has rejected claims 3-6 under 35 U.S.C. § 103(a) as being obvious over Ichikawa '491 in view of Tanaka et al., USP 6,355,407 (herein referred to as Tanaka '407). Applicants respectfully traverse this rejection.

The deficiencies of Ichikawa '491 were discussed above. However, the secondary disclosure of Tanaka '407 fails to cure the deficiencies of Ichikawa '491 as it relates to independent claim 1. Since claims 3-6 are dependent upon independent claim 1, this rejection fails to for the same reasons as discussed above. The Examiner is therefore respectfully requested to withdraw this rejection.

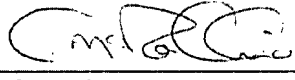
In view of the above, Applicants respectfully request that the Examiner withdrawal all rejections and allow the currently pending claims.

If the Examiner has any questions or comments please contact Craig A. McRobbie, Reg. No. 42,874 at the offices of Birch, Stewart, Kolasch & Birch, LLP.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: November 15, 2007

Respectfully submitted,

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Attachment: Declaration